

### REMARKS

The Applicants respectfully request entry of the amendments and remarks submitted herein. The Applicants have cancelled claim 11 without prejudice, amended claims 1, 2, 10, 12, and 16, and added new claims 19-26. The new claims 19-26 do not add new matter and are fully supported by the original disclosure. As a result, claims 1-10 and 12-26 are currently pending. The Applicants respectfully request allowance of all pending claims.

#### Rejection under 35 U.S.C. §102

Claim 1 was rejected under 35 U.S.C. §102(e) as being anticipated by Yen (U.S. Patent No. 6,573,464). The Applicants have amended claim 1 and do not believe that Yen anticipates, or renders obvious, claim 1 in its amended form. As such, the Applicants respectfully request reconsideration and allowance of claim 1.

As amended, claim 1 recites “a pressure sensor having pressure-sensitive zones that are each associated with a direction of motion”, and also an actuator that, when manipulated, “presses against at least one of the pressure-sensitive zones **causing each pressure-sensitive zone to generate a signal having a magnitude that is proportional to an amount of pressure exerted on that zone at a particular point in time**, and further causing the pointer to move on the display screen in any angular direction that is determined both by the direction of motion associated with **and also the magnitude of the signal generated by the at least one of the pressure-sensitive zones against which the actuator is pressed**” (emphasis added). The amendments to claim 1 are fully supported by the original disclosure (e.g., page 4, lines 3-9; page 5, lines 24-31; page 6, lines 5-15; page 7, lines 26-29). The Applicants contend that Yen neither anticipates nor renders obvious amended claim 1. Yen does not disclose pressure-sensitive zones that each generate a signal having a magnitude that is proportional to an amount of pressure exerted on that zone at a particular point in time when an actuator is manipulated. As shown in FIG. 5 of Yen, the actuator 42 comprises four touching points 58. Each touching point 58 can pass through one of the openings 60 to press against a corresponding switch 56 when the actuator 42 is manipulated. (Column 3, lines 19-27.) Given the structure disclosed in Fig. 5,

only one touching point 58 can pass through an opening 60 at any given point in time. As a result, only one of the four switches 56 can produce a sensing signal at any given point in time. Therefore, manipulation of the actuator 42 does not cause each switch 56 to generate a signal.

Further, the four switches 56 in Yen are not pressure-sensitive zones. Rather, the four switches 56 are only switches that produce sensing signals of either "on" or "off". (See column 3, lines 17-27.) As a result, manipulation of the actuator 42 does not cause each switch 56 to generate a signal having a magnitude that is proportional to the amount of pressure exerted on that switch. Furthermore, manipulation of the actuator 42 does not cause a pointer to move on a display screen in any angular direction that is determined in part by the magnitude of the signal generated by one of the switches 56. The switches 56 are capable only of detecting whether or not one of the touching points 58 has passed through a corresponding opening 60 that is associated with one of four predefined directions (north, south, east, west). As a result, manipulation of the actuator 42 at any given moment does not cause a pointer to move in any angular direction, but can only cause movement of the pointer in one of four predefined directions at a particular point in time.

Therefore, for these and other reasons, the Applicants believe that Yen neither anticipates nor renders obvious claim 1 in its amended form. The Applicants respectfully request reconsideration and allowance of claim 1.

### Rejections under 35 U.S.C. §103

#### *Claims 2, 3, 6, 7, and 9*

Claims 2, 3, 6, 7, and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 6,573,464) in view of Black (U.S. Patent No. 6,304,247). The Applicants have amended independent claim 1 and dependent claim 2. In view of these amendments, the Applicants do not believe that Yen and Black render claims 2, 3, 6, 7, and 9 unpatentable, and respectfully request reconsideration of allowance of these claims.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *M.P.E.P. 706.02(j)*. In view of the amendments made to claims 1 and 2, the Applicants contend that neither Yen nor Black, alone or in combination, teach or suggest all of the claim limitations recited in claims 2, 3, 6, 7, and 9.

Claims 2, 3, 6, 7, and 9 depend either directly or indirectly on independent claim 1. As described above, claim 1 recites (in amended form) “a pressure sensor **having pressure-sensitive zones** that are each associated with a direction of motion” and an actuator that, when manipulated, “presses against at least one of the pressure-sensitive zones **causing each pressure-sensitive zone to generate a signal having a magnitude that is proportional to an amount of pressure exerted on that zone at a particular point in time**, and further causing the pointer to move on the display screen in any angular direction that is determined both by the direction of motion associated with **and also the magnitude of the signal generated by the at least one of the pressure-sensitive zones against which the actuator is pressed**” (emphasis added). For at least the reasons stated above with regards to claim 1, the Applicants contend that Yen does not teach or suggest all of the claim limitations recited in claims 2, 3, 6, 7, and 9.

The Applicants further contend that Black does not teach or suggest all of the claim limitations recited in claims 2, 3, 6, 7, and 9. Black does not disclose pressure-sensitive zones that each generate a signal having a magnitude that is proportional to an amount of pressure exerted on that zone when an actuator is manipulated. As described in Black, manipulation of the actuator 14 causes compression of the element 40 and electrical charges to be “collected by the nearest conductive trace 44” (emphasis added). (Column 3, lines 41-47.) The Applicants contend that Black discloses only one pressure-sensitive zone, which is the element 40. The conductive traces 44 in Black are disposed on a surface of the element 40. (Column 3, lines 28-29.) As such, the Applicants do not believe that Black discloses a pressure sensor having multiple pressure-sensitive zones that are each associated with a direction of motion, such that when an actuator is manipulated, each such zone generates a signal having a magnitude that is proportional to the amount of pressure exerted on that zone.

Therefore, for these and other reasons, the Applicants do not believe that Yen and Black render claims 2, 3, 6, 7, and 9 unpatentable. The Applicants respectfully request reconsideration of allowance of these claims.

*Claims 4 and 5*

Claims 4 and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 6,573,464) in view of Honma (JP 410301706A). The Applicants have amended independent claim 1. Claims 4 and 5 depend either directly or indirectly on claim 1. For at least the reasons stated above with regards to claim 1, the Applicants contend that Yen does not teach or suggest all of the claim limitations recited in claims 4 and 5. The Applicants further contend that Honma does not teach or suggest all of the claim limitations recited in claims 4 and 5. Therefore, for these and other reasons, the Applicants do not believe that Yen and Honma render claims 4 and 5 unpatentable. The Applicants respectfully request reconsideration of allowance of these claims.

*Claim 8*

Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 6,573,464) in view of Amano (U.S. Patent No. 5,691,747). The Applicants have amended independent claim 1. Claim 8 depends directly on claim 1. For at least the reasons stated above with regards to claim 1, the Applicants contend that Yen does not teach or suggest all of the claim limitations recited in claim 8. The Applicants further contend that Amano does not teach or suggest all of the claim limitations recited in claim 8. Therefore, for these and other reasons, the Applicants do not believe that Yen and Amano render claim 8 unpatentable. The Applicants respectfully request reconsideration of allowance of this claim.

*Claims 10 and 11*

Claims 10 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 6,573,464) in view of Vance (U.S. Patent No. 6,437,682). The Applicants have amended independent claim 10 and cancelled claim 11. As amended, claim 10 now recites an actuator comprising a bottom surface, "such that when the actuator swivels about the pivot point, **each pressure zone on the pressure-sensitive film generates a signal having a magnitude that is proportional to an amount of pressure exerted on that pressure zone at a particular point in time** by one of the protrusions, causing the pointer to move on the display screen in any

angular direction determined by both a direction of motion associated with **and also the magnitude of the signal generated by each pressure zone against which the protrusions are pressed**" (emphasis added).

For at least the reasons stated above with regards to claim 1, the Applicants contend that Yen does not teach or suggest all of the claim limitations recited in claim 10. The Applicants further contend that Vance does not teach or suggest all of the claim limitations recited in claim 10. The Applicants do not believe that Vance discloses an actuator, such that when the actuator swivels about a pivot point, a set of pressure zones on a pressure-sensitive film each generate a signal having a magnitude that is proportional to an amount of pressure exerted on that pressure zone at a particular point in time, causing a pointer to move on a display screen in any angular direction determined by both a direction of motion associated with and also the magnitude of the signal generated by each pressure zone against which protrusions are pressed.

Therefore, for these and other reasons, the Applicants do not believe that Yen and Vance render claim 10 unpatentable. The Applicants respectfully request reconsideration of allowance of claim 10, and further request withdrawal of the rejection to claim 11 (now cancelled).

#### *Claims 12, 13, 14, and 15*

Claims 12, 13, 14, and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 6,573,464) in view of Vance (U.S. Patent No. 6,437,682) in further view of Black (U.S. Patent No. 6,304,247). The Applicants have amended independent claim 10 and dependent claim 12. Claims 12, 13, 14, and 15 depend directly on claim 10. For at least the reasons stated above with regards to claim 10, the Applicants contend that neither Yen nor Vance teaches or suggests all of the claim limitations recited in claims 12, 13, 14, and 15. For at least the reasons stated above with regards to claims 2, 3, 6, 7, and 9, the Applicants further contend that Black also do not teach or suggest all of the claim limitations recited in claims 12, 13, 14, and 15. Therefore, for these and other reasons, the Applicants do not believe that Yen, Vance, and Black render claims 12, 13, 14, and 15 unpatentable. The Applicants respectfully request reconsideration of allowance of these claims.



*Claim 16*

Claim 16 was rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 6,573,464) in view of Amano (U.S. Patent No. 5,691,747). The Applicants have amended independent claim 16. As amended, claim 16 now recites “detecting amounts of pressure applied to pressure-sensitive zones on a pressure sensor . . . wherein such detecting includes **processing signals generated by each of the pressure-sensitive zones that have signal magnitudes proportional to the amounts of pressure applied to the zones at a particular point in time**” and “determining a direction of motion that is based on both a sensing direction of motion associated with **and also on the magnitude of the signal generated by each pressure-sensitive zone against which the at least one protrusion is pressed**” (emphasis added).

For at least the reasons stated above with regards to claims 1 and 10, the Applicants contend that Yen does not teach or suggest all of the claim limitations recited in claim 16. The Applicants further contend that, for at least the reasons stated above with respect to claim 8, Amano does not teach or suggest all of the claim limitations recited in claim 16. The Applicants do not believe that Amano discloses detecting amounts of pressure applied to pressure-sensitive zones on a pressure sensor, wherein such detecting includes processing signals generated by each of the pressure-sensitive zones that have signal magnitudes proportional to the amounts of pressure applied to the zones at a particular point in time, and determining a direction of motion that is based on both a sensing direction of motion associated with and also on the magnitude of the signal generated by each pressure-sensitive zone against which at least one protrusion is pressed.

Therefore, for these and other reasons, the Applicants do not believe that Yen and Amano render claim 16 unpatentable. The Applicants respectfully request reconsideration of allowance of this claim.

*Claim 17*

Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 6,573,464) in view of Amano (U.S. Patent No. 5,691,747) in further view of Black (U.S. Patent No. 6,304,247). The Applicants have amended independent claim 16. Claim 17

depends directly on claim 16. For at least the reasons stated above with regards to claim 16, the Applicants contend that neither Yen nor Amano teaches or suggests all of the claim limitations recited in claim 17. For at least the reasons stated above with regards to claims 2, 3, 6, 7, and 9, the Applicants further contend that Black does not teach or suggest all of the claim limitations recited in claim 17. Therefore, for these and other reasons, the Applicants do not believe that Yen, Amano, and Black render claim 17 unpatentable. The Applicants respectfully request reconsideration of allowance of this claim.

#### *Claim 18*

Claim 18 was rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 6,573,464) in view of Amano (U.S. Patent No. 5,691,747) in further view of Honma (JP 410301706A). The Applicants have amended independent claim 16. Claim 18 depends directly on claim 16. For at least the reasons stated above with regards to claim 16, the Applicants contend that neither Yen nor Amano teaches or suggests all of the claim limitations recited in claim 18. For at least the reasons stated above with regards to claims 4 and 5, the Applicants further contend that Honma does not teach or suggest all of the claim limitations recited in claim 18. Therefore, for these and other reasons, the Applicants do not believe that Yen, Amano, and Honma render claim 18 unpatentable. The Applicants respectfully request reconsideration of allowance of this claim.

#### *New Claims*

The Applicants have added new claims 19-26. These claims do not add new matter, and are fully supported by the original disclosure (e.g., page 2, lines 10-11; page 3, lines 19-20; page 4, lines 9-13; page 4, lines 20-22; page 6, lines 15-22; page 10, lines 3-6 and lines 14-17). The Applicants respectfully request consideration and allowance of these newly added claims.

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Conclusion

The Applicants respectfully submit that the pending claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Applicants' attorney at 612-337-2586 to facilitate prosecution of the application.

Enclosed is a \$125.00 check for excess claim fees. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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